

### REMARKS

Claims 15-24 were presented for examination. Claims 15-24 were rejected in the Office Action dated February 5, 2007. No amendment is made in this response.

Reconsideration of this application, and allowance of all pending claims, claims 15-24 are hereby respectfully requested.

#### None of the references teach or suggest using two display areas in an interactive seamer

Claims 15-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over various combinations of U.S. Patent No. 6,624,846 (Lassiter), U.S. Patent No. 5,982,951 (Katayama), and U.S. Patent No. 5,404,316 (Klingler). This rejection is respectfully traversed.

Independent claim 15 specifically recites “a user interface having *a first display area for displaying a panoramic image and a second display area for displaying two or more single view images . . .*” (emphasis added).

In more detail, the user interface of the interactive seamer as recited in claim 15 has at least two display areas: a first display area that displays the panoramic image, and a second display area that displays two or more single view images that are seamed together to form the panoramic image. This feature advantageously allows the user to find errors or artifacts in the seaming operation by simultaneously viewing both the panoramic image and the constituent single view images used to form the panoramic image. See specification, p.12, ll.13-17.

This feature is not taught or suggested by any of the cited references taken alone or in combination. Lassiter discloses a visual user interface that displays to a video camera operator a target scene and a control scene selected from within the target scene. In Lassiter, the video camera operator views an overall scene (the target scene) and selects a portion of that scene that

he wants to capture (the control scene). See Lassiter, col.7, ll.7-19, and FIG. 2. By displaying the target scene and the control scene, the video camera operator can perceive the context of the control scene from the target scene and can more easily locate the desired control scene. See Abstract of Lassiter. That is, the visual user interface of Lassiter effectively functions as *a viewfinder* that facilitates finding the control scene to be captured from within a larger target scene. The visual user interface in Lassiter is used for finding and capturing desired control scenes from within a larger target scene. However, Lassiter does not seam single view images into a panoramic image, as recited by claim 15. Nor does Lassiter teach or suggest that its display areas may be used to display both a panoramic image and its constituent single view images, as is recited by claim 15.

Neither does Katayama teach or suggest the feature of “a first display area for displaying a panoramic image and a second display area for displaying two or more single view images.” At best, Katayama discloses an image combining apparatus that automatically detects and controls the color tones of individual images so that adjacent images will be better matched in color when combined into a panoramic image. However, nowhere in Katayama does it disclose that two display areas are provided in the user interface, as recited in claim 15.

Klingler also fails to teach or suggest this feature. Klingler was cited by the Examiner for disclosing control points for morphing the images. Nowhere in Klingler does it disclose that one display area displays the panoramic image, and another display area displays the constituent single view images.

Nor is there any suggestion or instruction in any of the cited references for combining these disclosures, as the Examiner contends, in any way that would yield Applicants’ invention of claim 15.

Independent claims 16 and 24 also recite the “first display area” and the “second display area.” The first display area recited in claims 16 and 24 displays the panoramic image whereas the second display area recited in claims 16 and 24 displays the single view images. Therefore, essentially the same arguments set forth above for claim 1 are equally applicable to claims 16, 24, and their dependent claims 17-23.

Accordingly, Applicants respectfully submit that claims 15, 16, 24, and their dependent claims 17-23 are patentable for the reason that they are patentably distinct from the cited references.

None of the references teach or suggest adjusting the opacity values of the pixels in the overlapping portions of the images

In addition, claim 15 specifically recites “an image seamer for seaming the two or more single view images into the panoramic image, wherein *the opacity values of the pixels in the overlapping portions encompassed by the outlined area can be manually adjusted by changing the size of the outlined area in the second display area.*” (emphasis added).

When generating the panoramic images from the two or more single view images, the edges of the single view images may not align, thereby causing artifacts to appear in the overlapping portions of the single view images in the panoramic image. Adjusting the opacity values of the pixels is advantageous because it allows the user to manipulate the images so that the artifacts in the panoramic image are eliminated or minimized. See specification, p.12, ll.17-19.

This feature is not taught or suggested by any of the cited references taken alone or in combination. As set forth above, Lassiter is essentially a viewfinder; and thus, the visual user

interface of Lassiter does not manipulate the images. Nowhere in Lassiter does it disclose adjusting the opacity values of the pixels.

Neither does Katayama disclose this feature. At best, Katayama discloses controlling the color tone of images. See Katayama, col.7, ll.18-25. Specifically, the color tone of an image is the color of the image, as defined by the color components (red, green, and blue components) of the image. For example, one image might have the sky as a light blue color and an adjacent image might have the sky as a dark blue color. Katayama adjusts the color of the sky in these images so that there will not be an abrupt transition from a light blue sky to a dark blue sky. See Katayama, col. 7, ll. 26-30. This is different from opacity. The opacity of an image is how transparent an image is, as defined for example by an alpha value (as opposed to red, green, and blue values). As recited in claim 15, it is the opacity values (and not the color tone) of overlapping images that are adjusted. See specification, p.4, ll. 23-24. Nowhere in Katayama does it teach or suggest adjusting the opacity values.

Klingler also fails to teach or suggest this feature. Klingler was cited by the Examiner merely for the reason that it disclosed control points for morphing the images. Nowhere in Klingler does it disclose adjusting the opacity.

Likewise, claim 24 also recites “the opacity values of the pixels in the overlapping portions encompassed by the outlined area can be manually adjusted by changing the size of the outlined area.” Therefore, essentially the same arguments set forth for claim 15 are equally applicable to claim 24.

Accordingly, Applicants respectfully submit that claims 15 and 24 are patentable for the additional reason that they recite the feature of “the opacity values of the pixels in the

overlapping portions encompassed by the outlined area can be manually adjusted by changing the size of the outlined area in the second display area.”

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Closing

Applicants believe that the application is in condition for allowance of all claims herein, claims 15-24, and therefore an early Notice of Allowance is respectfully requested. If the Examiner believes that for any reason direct contact with Applicants' attorney would help advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

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